DETAILED ACTION

1. Claims 21, 22 and 31-49 are pending as amended on 23 October 2009, claims 31-49 are new and claims 1-20 and 23-30 have been cancelled.

2. The text of those sections of Title 35, US Code not included in this action can be found in a prior Office Action.

Information Disclosure Statement

3. The information disclosure statements submitted on 02 September 2009 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statements.

Response to Amendment

4. Applicant's amendment to the specification in paragraph [0009], filed 23 October 2009, specifically replacing "monovalent or polyvalent anion" with "monovalent or polyvalent cation" has been fully considered and entered.

5. Applicant's amendment to the abstract, specifically replacing "drilling fluid" with ""well servicing composition" has been fully considered and entered.

6. Applicant's amendment to claim 21 and its dependent claim 22, filed 23 October 2009, specifically changing the flowable and pumpable temperature to 5^{o} to 20^{o}C has been fully considered and overcomes the following:

The rejection of claims 21 and 22 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement has been withdrawn.

7. Applicant's cancellation of claims12-20 and 23-30, filed 23 October 2009, has rendered the following moot:

The rejection of claims 12-19 and 23-30 under 35 USC 102(b) as being anticipated by US Patent 4,582,138 (Balzer hereinafter) has been withdrawn.

The rejection of claim 20 under 35 USC 103(a) as being unpatentable over Balzer in view of US Patent 5,232,910 (Mueller '910 hereinafter) has been withdrawn.

Claim Objections

8. Claims 41 is objected to over the phrase "…ether carboxylic acids is present…" it should be either "…ether carboxylic acid is present…" or "…ether carboxylic acids are present…" Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. Claims 31, 32, 37, 39, 40 and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 31 recites the limitation "…the emulsion…" There is insufficient antecedent basis for this limitation in the claims.

Claims 31, 32, 35, 36, 39 and 40 recites the limitation "…the ether carboxylic acid of formula (I)". There is insufficient antecedent basis for this limitation in the claims.

Claims 37 and 45 recite the limitation "…the ether carboxylic acid…" There is insufficient antecedent basis for this limitation in the claims.

Claims 39 and 40 lack antecedent basis for "X", since claim 36, from which claim 39 and 40 depend, recites "…x…" For the purpose of examination against the prior art, claims 39 and 40 were construed to recite, "…wherein x is a number…"

Claim Rejections - 35 USC § 102 and/or 35 USC § 103

10. Claims 21, 22, 31-37 and 39-46 are rejected under 35 U.S.C. 102(a) and 102(e) as being anticipated by or, in the alternative, under 35 USC 103(a) as being unpatentable over US Patent 4,582,138 (Balzer hereinafter).

Regarding claims 21, 22, 35, 36, 39, 40, 43 and 45, Balzer teaches emulsifiers and tensides, carboxymethylated oxethylates for oil recovery of the formula:

$$R - (OC_3H_6)_m (OC_2H_4)_n OCH_2 - COOM$$

wherein R is a linear or branched aliphatic residue of 6-20 carbon atoms or an alkylaromatic residue of 3-18 carbon atoms in the alkyl group, or a dialkylaromatic residue of 1-18 carbon atoms per alkyl chain, the total number of carbon atoms in both alkyl chains being 5-30, or a trialkylaromatic residue of 1-18 carbon atoms per alkyl chain wherein the total number of carbon atoms in the three alkyl chains is 6-40, m is 0-20, n is 1-20, M is an alkali or alkaline earth metal ion or ammonium column 4, lines 33 – 45).

Regarding claims 31 - 33, Balzer teaches the emulsion comprising an oil phase, an aqueous phase, and a carboxymethylated oxethylate as the emulsifier (column 4, lines 8 – 9). The additives are water soluble co-surfactants such as mono- and polyhydric alcohols (column 4, lines 60 – 62).

Regarding claim 34, Balzer teaches the crude oil or the oil phase consists of paraffinic hydrocarbons (column 14, lines 43 – 45).

Regarding claims 37, 41, 42 and 44, Balzer teaches that the emulsifier concentration is 0.2 – 15% by weight based on the aqueous phase (column 8, lines 46 - 48).

Regarding claim 46, Balzer teaches the volume ratio of organic phase to aqueous phase in the emulsion is 3:1 to 1:10 (column 4, lines 55 – 56).

Pertaining specifically to claim 21, Balzer discloses the same ether carboxylic ester composition as claimed; the oil recovery composition would inherently act in the same manner as instantly claimed. i.e., it will be flowable and pumpable at 5^{o} to 20^{o}C. If

there is any difference between the product of the oil recovery composition and the product of the instant claims the difference would have been minor and obvious. “Products of identical chemical composition can not have mutually exclusive properties.” A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. See MPEP 2112.01(I) , *In re Best*, 562 F2d at 1255, 195 USPQ at 433, *Titanium Metals Corp v Banner*, 778 F2d 775, 227 USPQ 773 (Fed Cir 1985), *In re Ludtke*, 441 F2d 660, 169 USPQ 563 (CCPA 1971) and *Northam Warren Corp v D F Newfield Co*, 7 F Supp 773, 22 USPQ 313 (EDNY 1934).

Where applicant claims a composition in terms of a function, property or characteristic and the composition of the prior art is the same as that of the claim but the function is not explicitly disclosed by the reference, the examiner may make a rejection under both 35 USC 102 and 103. "There is nothing inconsistent in concurrent rejections for obviousness under 35 USC 103 and for anticipation under 35 USC 102." See MPEP 2112(III) and *In re Best*, 562 F2d at 1255, 195 USPQ at 433.

Regarding claim 22, since claim 22 limits the oil phase comprises at least one member selected from the group consisting of

(a) carboxylic ester,

(b) linear or branched olefins,

(c) water-insoluble, symmetrical or nonsymmetrical ethers of monohydric alcohols of natural or synthetic origin which contain 1 to 24 carbon atoms,

(d) water-insoluble alcohols of formula: R"-OH (III) where R"' is a saturated, unsaturated, linear or branched alkyl group containing 8 to 24 carbon atoms,

(e) carbonic acid diesters,

(f) paraffins, and

(g) acetals,

Balzer which reads on paraffins therefore reads on claim 22.

Claim Rejections - 35 USC § 103

11. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Balzer in view of US Patent 5,232,910 (Mueller '910 hereinafter) (Cited by Applicant).

The teachings of Balzer are detailed in the rejection under 35 U.S.C. 102(b)/103(a) of claims 21, 22, 31-37 and 39-46 above. However, it does not disclose expressly the composition additionally comprises free fatty acids.

Regarding claim 38, Mueller '910 teaches esters of monofunctional carboxylic acids with monofunctional alcohols derived from triglycerides are suitable for the production of drilling fluids Column 2, lines 44-47). Mueller '910 further discloses the presence of carboxylic acids containing less than 16 carbon atoms is more acceptable. In small quantities, the contents of such lower fully saturated fatty acids often present in natural starting materials are frequently valuable mixture components. Their esters are not vulnerable to oxidation under practical in-use conditions and their rheologic properties promote the replacement of the pure hydrocarbon oils hitherto solely used in practice by ester oils or ester oil fractions (column 6, lines 14-25).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the free fatty acid of Mueller '910 in the oil recovery composition of Balzer. The rational to do so would have been the motivation provided by the teaching of Mueller '910 that to do so would make their esters less vulnerable to oxidation under practical in-use conditions (column 6, lines 21-22).

Allowable Subject Matter

12. Claims 47-49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

US Patent 4,582,138 (Balzer hereinafter), the closest prior art, teaches similar carboxymethylated oxyethylates of the formula R-(C_3H_6)m(OC_2H_4)nOCH_2-COOM as an emulsifier comprising an oil phase such as crude oil and an aqueous phase but fails to teach or fairly suggest the composition further comprises olefins.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ATNAF ADMASU whose telephone number is (571)270-5465. The examiner can normally be reached on M-F 8:00-5:30, Flexible Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ASA/

/Timothy J. Kugel/
Primary Examiner, Art Unit 1796